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7 Amended application PCT/NL99/00424
as filed with letter dated July 7, 2000

Claims

1. Mould (1) for encapsulating electronic components mounted on a carrier,
comprising:

5 - at least two mould parts (2,3) displaceable relative to each other, at least one of
which is provided with a recess (5), and

- feed means for encapsulating material,

wherein at least one of the mould parts (2,3) is provided with a suction runner (9)
which connects on one side to a wall of a mould part (2,3) co-defining a mould cavity
10 (10) and connects on the other side to a side of the mould part (2,3) remote from the
mould cavity (10),

characterised in that the suction runner (9) takes a multiple form that connects
to a number of apertures (8) in the wall of a lower mould part (3) on positions (8)
opposite the recess (14) in the upper mould part (2).

15 2. Mould (1) as claimed in claim 1, characterised in that a plurality of suction
runners (9) connecting onto the wall defining the mould cavity (10) are in mutual
communication and are connected to a single runner (13) which connects onto a side
of the lower mould part (3) remote from the mould cavity (10).

20 3. Mould (1) as claimed in claim 1 or 2, characterised in that the runner (9)
debouches in a wall defining a mould cavity (10), which wall is screened from a feed
opening for encapsulating material by a carrier when encapsulating material is fed to
the mould (1).

25 4. Mould (1) as claimed in any of the foregoing claims, characterised in that
the apertures (8) are arranged in the wall of a lower mould part (3) in patterns.

30 5. Mould (1) as claimed in any of the foregoing claims, characterised in that
the lower mould part (3) is provided with at least one aligning edge for positioning a
carrier relative to the lower mould part (3).

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6. Encapsulating device for encapsulating electronic components mounted on a carrier, comprising:

- a mould (1) as claimed in any of the foregoing claims,
- drive means for positioning and causing the mould parts (2,3) to move relative to each other,
- feed means for encapsulating material, and
- a fan connecting onto the side of the runner (9) remote from the mould cavity (10), characterised in that the fan is adapted to blow gases into the runner (9) and to extract gases from the runner (9).

7. Method for encapsulating electronic components mounted on a carrier, comprising the steps of:

- A) positioning at least one carrier relative to a lower mould part (3),
- C) closing a mould (1) by moving the lower mould part (3) and an upper mould part (2) towards each other,
- D) feeding encapsulating material to the part of the mould cavity (10) left clear by the carrier, and
- D) opening the mould halves (2,3) and removing the carrier with encapsulating material arranged thereon, wherein during step D) an overpressure is applied in a runner (9) connecting onto a wall co-defining the mould cavity (10), which overpressure releases the encapsulated electronic components from the lower mould part (3).

8. Method for encapsulating electronic components according claim 7, characterised in that after step A) during a step B) an underpressure is applied in the runner (9), whereby the carrier is sucked to lower mould part (3).

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